Applicant: Philip A. Cooper et al.

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Amendments to the claims (this listing replaces all prior versions):

(currently amended) A machine-based method comprising:
 receiving data representing current prices of options on a given an asset, the options
 being associated with different strike prices of the asset at a future time,

by machine, performing computations to derive from said the data an estimate of a corresponding implied probability distribution of the to a price or prices of said the asset at a future time,

the computations including a smoothing operation performed in a volatility domain, an operation on a result of the smoothing to obtain a first probability distribution, and a shift in a mean of the first probability distribution to obtain a second probability distribution, and

making information about said the second probability distribution available within a time frame that is useful to investors.

- 2. (currently amended) The method of claim 1 in which the data represent a finite number of prices of options at spaced-apart strike prices of the asset, and also including in which the operation to obtain a first probability distribution comprises calculating a set of first differences of said finite number of prices to form an estimate of the cumulative probability distribution of the price of said the asset at a future time.
- 3. (currently amended) The method of claim 2 also including in which obtaining a second probability distribution also includes calculating a set of second differences of the finite number of strike prices from the set of first differences to form an estimate of the probability distribution function of the price of said the asset at a future time.
 - 4-7. (Cancelled).
 - 8. (currently amended) A machine-based method comprising:

receiving data representing current prices of options on a given asset at a first time, the options being associated with spaced-apart strike prices of the asset at a future time,

the data <u>also representing including shifted current</u> prices of options <u>at a second time</u>, resulting from a shifted <u>in which an underlying price</u> of the asset <u>at the second time is shifted</u>

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from an underlying price of the asset at the first time, the amount by which the asset price has shifted being different from the amount by which the strike prices are spaced apart and the second time is sufficiently soon after the first time that any shifting of other variables that affect option prices is small,

estimating, based on the prices of the options at the second time, prices of options at the first time, and

by machine, performing computations to derive from said data an estimate of a quantized implied probability distribution of the price of said asset at a future time, the elements of the quantized probability distribution being more finely spaced than for a probability distribution derived without the shifted current price data corresponding to both the prices of options at the first time and the prices of options at the first time estimated from the observations at the second time.

9. (Previously presented) A machine-based method comprising receiving data representing current prices of options on a given asset, the options being associated with spaced-apart strike prices of the asset at a future time,

by machine, performing computations to derive from said data an estimate of an implied probability distribution of the price of said asset at a future time, the mathematical derivation including a smoothing operation, and

making information about said probability distribution available within a time frame that is useful to investors.

- 10. (Original) The method of claim 9 in which the smoothing operation is performed in a volatility domain.
 - 11-27. (Cancelled).